

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

MLC INTELLECTUAL PROPERTY, LLC,  
Plaintiff,  
v.  
MICRON TECHNOLOGY, INC., et al.,  
Defendants.

Case No. [14-cv-03657-SI](#)

**ORDER RE: SUMMARY JUDGMENT  
MOTIONS**

Re: Dkt. Nos. 97, 103

On March 17, 2017, the Court held a hearing on the parties' summary judgment motions. For the reasons set forth below, the Court DENIES plaintiff's summary judgment motion that the 35 U.S.C. § 121 safe harbor provision applies to U.S. Patent No. 5,764,571 ("the '571 patent"), and the Court DENIES defendant's summary judgment motion that the '571 patent is invalid because of obviousness-type double patenting ("OTDP") in view of U.S. Patent No. 7,911,851 ("the '851 patent") or U.S. Patent No. 8,570,814 ("the '814 patent").

**BACKGROUND**

Plaintiff MLC Intellectual Property, LLC, alleges that defendant Micron Technology, Inc., infringes the '571 patent, titled "Electrically Alterable Non-Volatile Memory with n-bits Per Cell" by making, using, offering to sell, selling, and importing over 150 different products. The '571 patent discloses non-volatile memory devices and methods of programming and/or verifying the programming of multi-level non-volatile memory devices. Non-volatile memory is capable of retaining the data with which it is programmed after the device is powered off. *See* '571 Patent 1:19-18; Dkt. No. 72-2 at ¶ 16. The memory device, made up of multiple semiconductor cells, has  $K^n$  predetermined memory states, where  $K$  is a base of a predetermined number system (such as 2

1 in the binary system of “1” or “0”),  $n$  is the number of bits that can be stored in each cell, and  $K^n >$   
2 2. ’571 Patent at abstract.

3 Conventional memory cell devices allowed only two memory storage states in each cell  
4 based on the one bit of information the cell was capable of storing. *Id.* at 1:24-26. Memory  
5 storage devices that were enhanced to allow multiple bits of storage per cell were either non-  
6 alterable read-only memory systems or volatile memory devices not capable of permanent storage.  
7 *Id.* at 1:31-35. The ’571 patent attempts to solve this drawback by creating a “multi-level  
8 electrically alterable non-volatile memory (EANVM) device, wherein some or all of the storage  
9 locations have more than two states.” *Id.* at 2:50-54.

10 The ’571 patent traces its lineage to a U.S. Patent Application No. 07/652,878, filed on  
11 February 8, 1991. Following this application, plaintiff filed U.S. Patent Application No.  
12 08/071,816 (“the ’816 application”), which was a continuation of U.S. Patent Application No.  
13 07/652,878. During prosecution of the ’816 application, the examiner issued a restriction  
14 requirement, requiring plaintiff to elect one of three independent and distinct inventions for  
15 prosecution.<sup>1</sup> Plaintiff elected the memory system, and the restricted ’816 application issued as  
16 U.S. Patent No. 5,394,362 (“the ’362 patent”).

17 The day before the ’362 patent issued, plaintiff filed U.S. Application No. 08/410,200  
18 (“the ’200 application”) as a continuation-in-part (“CIP”) of the ’816 application. During  
19 prosecution, the ’200 application was amended to remove any new matter and convert the  
20 application into a division of the ’816 application. The ’200 application issued as the ’571 patent,  
21 a division of the ’816 application.

22 Plaintiff filed U.S. Application No. 08/975,919 (“the ’919 application”) as a CIP of the  
23 ’200 application. Plaintiff subsequently filed U.S. Application No. 09/411,315 (“the ’315  
24 application”) as a division of the ’919 application. On January 28, 2000, plaintiff filed U.S.

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25  
26 <sup>1</sup> The groups of claims corresponding to independent and distinct inventions that the  
27 examiner identified for election were the following: (I) claims drawn to a memory system, (II)  
28 claims drawn to a method of operation of a FET, and (III) claims drawn to FET device. FET  
stands for “field-effect transistor,” and FETs use electric fields to control a device’s electrical  
behavior. *See* MCGRAW-HILL DICTIONARY OF SCIENTIFIC & TECHNICAL TERMS 794 (Elizabeth  
Geller *et al.*, eds., 6th ed. 2003).

Application No. 09/493,139 (“the ’139 application”) as a division of the ’315 application. After one intervening continuation application and five intervening divisional applications, plaintiff filed U.S. Patent Application No. 11/876,683 (“the ’683 application”), which issued as the ’851 patent. Plaintiff filed U.S. Application No. 13/041,340 as a division of the ’683 application, which issued as the ’814 patent.

The ’851/’814 patents share a common title, “Memory Apparatus Including Programmable Non-Volatile Multi-Bit Memory Cell, and Apparatus and Method for Demarcating Memory States of the Cell.” Both patents relate generally to non-volatile memory devices, and more specifically to apparatus and methods involving memory-state demarcation and programming reference signal generation in multi-level non-volatile memory devices. ’851 Patent 1:33-37; ’814 Patent 1:35-39. The ’851/’814 patents purport to improve upon predecessor EANVM applications by having the read reference signals and programming reference signals track changes in operating and ambient conditions, thereby increasing accuracy. ’851 Patent 3:39-46, 13:65-67, 14:1-40; ’814 Patent 3:42-49, 14:4-44.

### LEGAL STANDARD

Summary judgment is proper if the pleadings, the discovery and disclosure materials on file, and any affidavits show that there is no genuine dispute as to any material fact and that the movant is entitled to judgment as a matter of law. *See* Fed. R. Civ. P. 56(a). The moving party bears the initial burden of demonstrating the absence of a genuine issue of material fact. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). The moving party, however, has no burden to produce evidence showing the absence of a genuine issue of material fact. *Id.* at 325. Rather, the burden on the moving party may be discharged by pointing out to the district court that there is an absence of evidence to support the nonmoving party’s case. *Id.*

Once the moving party has met its burden, the burden shifts to the non-moving party to “designate ‘specific facts showing that there is a genuine issue for trial.’” *Id.* at 324 (quoting then Fed. R. Civ. P. 56(e)). To carry this burden, the non-moving party must “do more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita Elec. Indus. Co.*,

*Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986). “The mere existence of a scintilla of evidence . . . will be insufficient; there must be evidence on which the jury could reasonably find for the [non-moving party].” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 252 (1986).

In deciding a summary judgment motion, the evidence of the non-movant is to be believed, and all justifiable inferences are to be drawn in his favor. *Id.* at 255. “Credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge . . . ruling on a motion for summary judgment . . . .” *Id.* However, conclusory, speculative testimony in affidavits and moving papers is insufficient to raise genuine issues of fact and defeat summary judgment. *Thornhill Publ’g Co., Inc. v. Gen. Tel. & Elec. Corp.*, 594 F.2d 730, 738 (9th Cir. 1979). The evidence the parties present must be admissible. Fed. R. Civ. P. 56(c)(4). Finally, because a patent is presumed valid, invalidity must be established by clear and convincing evidence. *See Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1355 (Fed. Cir. 2007); *Oakley, Inc. v. Sunglass Hut Int’l*, 316 F.3d 1331, 1339 (Fed. Cir. 2003).

## DISCUSSION

### I. Plaintiff’s motion for summary judgment

Plaintiff seeks summary judgment that the ’571 patent is not invalid because of obviousness-type double patenting in view of the ’851 or ’814 patents because the 35 U.S.C. § 121 safe harbor applies. The § 121 safe harbor protects certain patents and patent applications from double patenting rejections/invalidations when the United States Patent and Trademark Office (“PTO”) has issued a restriction requirement. A party invoking the safe harbor must demonstrate that (1) the “as a result of” requirement is met and (2) “consonance” is maintained.

Plaintiff argues that the “as a result of” requirement of the safe harbor is satisfied because (i) the ancestral ’816 application was subject to a formal restriction requirement; (ii) in response to that restriction requirement, plaintiff filed the divisional ’139 application; (iii) both the challenged ’571 patent and the reference ’851/’814 patents share a common lineage to the ’816 application; and (iv) but for the restriction requirement, plaintiff could have pursued all of the

'571/'851/'814 patents' claims in the '200 application. Plaintiff also argues that the consonance requirement of the safe harbor is met because the '571 and '851/'814 patents are directed toward different inventions identified in the '816 application's restriction requirement.

**A. Restriction practice and the § 121 safe harbor**

If a patent application claims two or more independent and distinct inventions, the PTO may issue a restriction requirement, requiring the applicant to elect one of the inventions for prosecution. *See* 35 U.S.C. § 121 (2015). The applicant is then free to file one or possibly more divisional applications claiming the non-elected invention(s) identified in the restriction requirement. *See id.*

Before the 1952 Patent Act, the law afforded no protection to divisional applications filed as a result of a restriction requirement. *See Pfizer, Inc. v. Teva Pharms. USA, Inc.*, 518 F.3d 1353, 1360-61 (Fed. Cir. 2008). The Patent Office was free to reject such divisional applications on grounds of double patenting. *Id.* at 1361; *see also In re Isherwood*, 46 App.D.C. 507, 512 (D.C. Cir. 1917) (holding that an earlier restriction requirement does not estop an examiner from rejecting a divisional application). Likewise, courts were free to invalidate patents issuing from such divisional applications on grounds of double patenting. *Pfizer*, 518 F.3d at 1361; *see, e.g., Remington Rand Bus. Serv., Inc. v. Acme Card Sys. Co.*, 71 F.2d 628 (4th. Cir. 1934).

Recognizing the inequity of this practice, Congress included a safe harbor in § 121 of the 1952 Patent Act. *See Studiengesellschaft Kohle mbH v. N. Petrochemical Co.*, 784 F.2d 351, 358 (Fed. Cir. 1986) (Newman, J., concurring); *Gerber Garment Tech. v. Lectra Sys., Inc.*, 916 F.2d. 683, 688 (Fed. Cir. 1990) (approving of J. Newman's description of the remedial purpose of § 121 in *Studiengesellschaft*). Section 121 provides in relevant part:

If two or more independent and distinct inventions are claimed in one application, the Director may require the application to be restricted to one of the inventions. If the other invention is made the subject of a divisional application which complies with the requirements of section 120 it shall be entitled to the benefit of the filing date of the original application. *A patent issuing on an application with respect to which a requirement for restriction under this section has been made, or on an application filed as a result of such a requirement, shall not be used as a reference either in the Patent and Trademark Office or in the courts against a divisional application or against the original application or any patent issued on either of*

1            *them, if the divisional application is filed before the issuance of the patent on the*  
2            *other application. . . .*

3            35 U.S.C. § 121 (emphasis added).

4            The § 121 safe harbor “protect[s] an applicant from losing rights when an application is  
5            divided.” *Boehringer Ingelheim Int’l GmbH v. Barr Labs., Inc.*, 592 F.3d 1340, 1350  
6            (Fed. Cir. 2010). Congress intended § 121 to “allow applicants to reasonably rely on restriction  
7            requirements,” thus bringing “clarity and fairness to the interaction between restriction and double  
8            patenting.” *Pfizer*, 518 F.3d at 1361.

9            With § 121, however, comes the potential for abuse, as the safe harbor “can extend the  
10           patent term for inventions that are not patentably distinct.” *Geneva Pharm., Inc. v.*  
11           *GlaxoSmithKline PLC*, 349 F.3d 1373, 1382 (Fed. Cir. 2003). The Federal Circuit has recognized  
12           this risk and dictated “‘a strict test’ for the application of section 121, ‘[g]iven the potential  
13           windfall [a] patent term extension could provide to a patentee.’” *G.D. Searle LLC v.*  
14           *Lupin Pharm., Inc.*, 790 F.3d 1349, 1354 (Fed. Cir. 2015) (quoting *Geneva*, 349 F.3d at 1382);  
15           *see also Amgen Inc. v. F. Hoffman-La Roche Ltd.*, 580 F.3d 1340, 1353 (Fed. Cir. 2009) (calling  
16           for “a strict application of the plain language of § 121”).

17           The Federal Circuit has promulgated a two-pronged test for § 121 safe harbor applications.  
18           *Bristol-Myers Squibb Co. v. Pharmachemie B.V.*, 361 F.3d 1343, 1347-48 (Fed. Cir. 2004). To  
19           invoke the safe harbor, a party must demonstrate that (1) the “as a result of” requirement, which  
20           follows from the plain language of the statute, is met and (2) the judicially created “consonance”  
21           requirement is satisfied. *Id.*; *St. Jude Med., Inc. v. Access Closure, Inc.*, 729 F.3d 1369, 1377  
22           (Fed. Cir. 2013); *Boehringer*, 592 F.3d at 1352-53.

## 23           **B.        The consonance requirement**

24           The consonance requirement arose from the “[p]lain common sense” notion that “a  
25           divisional filed as a result of a restriction requirement may not contain claims drawn to the  
26           invention set forth in the claims elected and prosecuted to patent in the parent application.”  
27           *Gerber Garment*, 916 F.2d at 687. “To gain the benefits of Section 121 . . . , [a patentee] must  
28           have limited the claims in its divisional application to the non-elected invention or inventions.”

*Id.* at 688. This “requirement is consistent with the legislative purpose behind Section 121,” as “Congress could not have intended to deny all inquiry into whether the restriction requirement . . . ha[s] been disregarded” during subsequent prosecution. *Id.*

Plaintiff contends that consonance only requires the challenged ‘571 patent and the ‘851/’814 reference patents be directed toward different inventions as set out by the restriction requirement. Plaintiff contends that consonance does not require either the challenged ‘571 patent or the reference ‘851/’814 patents to claim a different invention than the invention elected in the restricted ‘816 application, and plaintiff concedes that the ‘571 patent is drawn to the same invention, *i.e.*, the memory system, elected and prosecuted to patent in its parent ‘816 application. Plaintiff’s Motion at 10:17-18 (Dkt. No. 97); Plaintiff’s Reply at 8:25-27, 9:4-6 (Dkt. No. 101).

The Court finds unpersuasive plaintiff’s argument that consonance only requires that the challenged ‘571 patent and the reference ‘851/’814 patents be directed toward different inventions. “[P]lain common sense dictates that a divisional filed as a result of a restriction requirement may not contain claims drawn to the invention set forth in the claims elected and prosecuted to patent in the parent application.” *Gerber Garment*, 916 F.2d at 687. Section 121 requires that “[any] divisional application [] have claims drawn only to the ‘other invention.’” *Id.* Thus, “[c]onsonance in a case like this requires that the challenged patent, the reference patent, and the patent in which the restriction requirement was imposed (the restricted patent) do not claim any of the same inventions identified by the examiner.” *St. Jude*, 729 F.3d at 1377; *see also Boehringer*, 592 F.3d at 1354; *Amgen*, 580 F.3d at 1353. Here, plaintiff filed the ‘200 application (the challenged ‘571 patent) drawn to the same invention (Invention 1, memory device) that was elected and prosecuted to patent in its parent, restricted ‘816 application (which resulted in the restricted ‘362 patent), and thus consonance is lacking.

### C. The “as a result of” requirement

A party invoking the § 121 safe harbor must also show that both the challenged patent and the reference patent were filed as a result of a restriction requirement. *Bristol-Myers Squibb*, 361 F.3d. at 1347-48; *Boehringer*, 592 F.3d at 1352 (“We have repeatedly held that the ‘as a result

of requirement applies to the challenged patent as well as the reference patent.”). The Federal Circuit has interpreted “as a result of” to impose numerous, specific conditions for the requirement to be met. Among those conditions, the § 121 safe harbor “by its literal terms” applies only to “divisional application[s] . . . and patents issued on such applications,” as well as patents issuing from restricted applications. *Pfizer*, 518 F.3d at 1360. Therefore, the “as a result of” requirement is not met when the challenged patent descends from a CIP application and not a divisional application. *Id.* at 1362; *see also G.D. Searle*, 790 F.3d. at 1353-55 (holding the “as a result of” requirement was not met where patentee amended an application via a reissue to re-designate the application a divisional, reasoning that “[s]imply deleting that new matter from the reissue patent does not retroactively alter the nature of the [application from which the challenged patent descended]”). The Federal Circuit has rejected calls “to look to an application’s substance – not its designation – to determine whether it qualifies as a divisional application under § 121’s safe harbor,” holding that such arguments “do[] not justify departing from a strict application of the plain language of § 121 . . . .” *Amgen*, 580 F.3d. at 1353.

The ’200 application is the only application on record that is a child application of the restricted ’816 application, and the ’571/’851/’814 patents on their faces indicate that they ultimately descend from the ’200 application. *See Kieckhefer Decl. Exs. B, C, E.* The parties do not dispute that the ’200 application was originally filed as a CIP, nor do they dispute that the ’200 application as originally filed contained new matter and therefore was properly designated a CIP. Given the *Pfizer/G.D. Searle/Amgen* line of case law and the Federal Circuit’s command for “a strict test” for § 121 application, the Court finds plaintiff has not demonstrated that the “as a result of” requirement is met where the challenged/reference patents ultimately descend from an application originally filed as a CIP.

In sum, the Court holds plaintiff has not met its burden of demonstrating that it is entitled to summary judgment that the § 121 safe harbor applies, as the challenged/alleged divisional ’571 patent claims the same invention elected in the restricted ’816 application. As an additional ground for denial, the Court holds that plaintiff has not met its summary judgment burden of



demonstrating that patents descending ultimately from an application originally filed as a CIP can be “divisional applications” for § 121 purposes.

## II. Defendant’s motion for summary judgment

Defendant seeks summary judgment that claims 1, 9, 12, 30, 42, and 45 (“the asserted claims”) of the ’571 patent are invalid under OTDP, obviousness-type double patenting. Defendant contends that ’571 patent claim 1 is patentably indistinct from claims 7 of the ’851 and ’814 patents, or alternatively, from claims 3 of the ’851 and ’814 patents. Defendant also contends that ’571 patent claims 9, 12, 30, 42, and 45 are patentably indistinct from claims 7 of the ’851 and ’814 patents.

Double patenting doctrine is based on the *quid pro quo* principle that “in exchange for a patent, an inventor must fully disclose his invention and promise to permit free use of it at the end of the patent term.” *Gilead Scis., Inc. v. Natco Pharma Ltd.*, 753 F.3d 1208, 1212 (Fed. Cir. 2014). The prohibition against double patenting protects free use of an invention that was the subject of an expired patent “by limiting a patentee to one patent term per invention or improvement.” *Id.* Double patenting is a question of law. *Sun Pharm. Indus., Ltd. v. Eli Lilly & Co.*, 611 F.3d 1381, 1384 (Fed. Cir. 2010).

OTDP bars “claims in a later patent that are not patentably distinct from claims in a commonly owned earlier patent.” *Id.* (internal quotations removed). OTDP analysis involves two steps. First, a court “construes the claim[s]” in both patents “and determines the differences.” *Id.* at 1385. Second, a court “determines whether those differences render the claims patentably distinct.” *Id.* “A latter claim” is not patentably distinct if it “is obvious over[] or anticipated by an earlier claim.” *Id.* (internal quotations removed).

**A. The ‘814 and ‘851 patents can be used as OTDP references against the ‘571 patent**

As an initial matter, plaintiff renews its earlier contention that later-filed but earlier-expiring patents cannot be used as OTDP references against earlier-filed but later-expiring patents. In its opposition to defendant’s first motion for summary judgment on OTDP, plaintiff argued that the ’851 patent cannot be used as an invalidating reference against the ’571 patent under *Gilead Sciences, Inc. v. Natco Pharma Ltd.*, 753 F.3d 1208 (Fed. Cir. 2014). Plaintiff argued that *Gilead* is limited to a situation where both the challenged patent and the double patenting reference are post-URAA patents, whereas this case involves a pre-URAA challenged patent and a post-URAA reference patent. The Court rejected that argument, finding that *Gilead* held that “an earlier-expiring patent can qualify as an obviousness-type double patenting reference for a later-expiring patent.” *Gilead*, 753 F.3d at 1217; *Abbvie Inc. v. Mathilda & Terence Kennedy Inst. Of Rheumatology Trust*, 764 F.3d 1366, 1374 (Fed. Cir. 2014) (“In *Gilead*, we held that a later-issued, but earlier-expiring patent could qualify as a double patenting reference, and thus invalidate an earlier-issued, but later expiring patent.”).

The Court finds plaintiffs’ renewed (and amplified) arguments unpersuasive and again holds that the ’851 and ’814<sup>2</sup> patents can be used as invalidating OTDP references against the ’571 patent. *See* Dkt No. 70 n.4. Although the Federal Circuit has not addressed the specific fact pattern where a later-filed but earlier-expiring patent was used as an OTDP reference against an earlier-filed but later-expiring patent, *Gilead* held that what is relevant is the patents’ expiration dates, and that a later-issued but earlier-expiring patent could serve as an OTDP reference against an earlier-issuing but later-expiring patent. *Gilead*, 753 F.3d at 1211-12. In *Gilead*, the Federal

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<sup>2</sup> Defendant’s initial motion for summary judgment of invalidity did not include the ‘814 patent. The analysis regarding whether defendant may rely on the ‘814 and ‘851 patents as invalidating references is the same.

Circuit emphasized that the OTDP doctrine “limit[s] a patentee to one patent term per invention or improvement” and thus protects “the bedrock principle” that “when a patent expires, the public is free to use not only the same invention claimed in the expired patent, but also obvious or patentably indistinct modifications of that invention.” *Id.* at 1212, 1214. If the ’571 patent is indeed patentably indistinct from the ’851 and ’814 patents, plaintiff would be entitled to only one patent term for that invention, and the roughly three and a half months where the ’571 patent’s term extended beyond the ’851 and ’814 patents’ term would be an impermissible extension of the ’851 and ’814 patents’ term of exclusivity. The filing dates in no way affect this analysis.

Further, at least two courts have relied on later-filed, post-URAA patents to invalidate earlier-filed, pre-URAA patents under OTDP. *See Janssen Biotech, Inc. v. Celltrion Healthcare Co.*, No. 15-10698-MLW, 2016 WL 5698362 (D. Mass. Sept. 29, 2016), appeal docketed, No. 17-1120 (Fed. Cir. Oct. 28, 2016) (holding a patent filed in 1994 invalid for OTDP based on a patent filed in 2001); *see also Magna Elecs., Inc. v. TRW Auto. Holdings Corp.*, Nos. 1:12-cv-654, 1:13-cv-324, 2015 WL 11430786 (W.D. Mich. 2015) (holding a patent filed in 1999 invalid for OTDP based on a patent filed in 2006).<sup>3</sup> In *Janssen*, the defendant sought to invalidate through OTDP an earlier-filed, earlier-issuing, but later expiring pre-URAA patent over a later-filed, later-issuing, but earlier expiring post-URAA patent. *Id.* at \*1-2. The patent owner in *Janssen*, like plaintiff here, argued that Congress intended pre-URAA patents be granted their full term despite the change in law. *Id.* at \*2. In rejecting the patent owner’s argument, the *Janssen* court concluded that *Gilead* “essentially rejected plaintiff’s argument” by holding that an earlier-expiring patent can qualify as on OTDP reference for a later-expiring patent. *Id.* at \*2-3. The *Janssen* court

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<sup>3</sup> Plaintiff asserts that the *Magna* court incorrectly believed that the earlier-filed, later-expiring patent (the ’149 patent) issued later than the later-filed, earlier-expiring patent that was used as the OTDP invalidating reference. Regardless, the *Magna* court included a chart that correctly identified the filing, issuance, and expiration dates for the patents, and the court invalidated the earlier-filed, later-expiring patent based on the later-filed, earlier-expiring patent. *Magna*, 2015 WL 11430786, at \* 3, 5.

1 reasoned that (i) because courts “presume[] that legislatures act with case law in mind” and (ii)  
2 because the URAA is silent on double patenting, “Congress could not have intended . . . to disturb  
3 . . . the doctrine of double patenting” and guaranteed that pre-URAA patents will always enjoy 17  
4 years of protection. *Id.* at \*2 (internal quotations removed). The Court adopts the reasoning in  
5 *Janssen* and holds that the ’571 patent is not entitled to its full 17-year term if its invention is not  
6 patentably distinct from the inventions in the ’851 or ’814 patents.

### 7 8 9 **B. OTDP analysis**

10 Defendant contends that the allegedly double-patented invention in the ’571, ’851, and  
11 ’814 patents possesses four major elements: (1) a multi-level memory cell, (2) a memory cell  
12 programming means, (3) a reference voltage selection, and (4) voltage comparison. Defendant  
13 contends that most of the differences between the ’571 patent asserted claims and claims 7 and 3  
14 of the ’851/’814 patents are trivial linguistic differences that do not create a patentable distinction.  
15 Defendant argues that any differences that are not linguistic are obvious and thus do not create a  
16 patentable distinction. Defendant does not construe ’851/’814 patent claim terms, and instead  
17 argues that ordinary and customary meanings in the ’851/’814 patent claims clearly invalidate the  
18 ’571 patent asserted claims.<sup>4</sup> In support of its motion defendant has submitted, *inter alia*, the  
19 declaration of its expert, Joseph McAlexander, in which he sets forth his opinions that the  
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24 <sup>4</sup> Defendant also contends that plaintiff waived any substantive defense to defendant’s  
25 double patenting arguments because plaintiff did not provide a substantive response in opposition  
26 to defendant’s original summary judgment motion. Plaintiff argues that it could not have  
27 substantively responded to defendant’s initial summary judgment motion because no *Markman*  
28 hearing had yet been held, and plaintiff notes that it did oppose defendant’s initial summary  
judgment motion on other grounds. The Court finds plaintiff’s argument persuasive and holds that  
plaintiff did not waive any substantive defense to defendant’s double patenting contentions. *See*  
*Amgen*, 580 F.3d. at 1351 (holding that failure to raise an alternative defense does not constitute a  
waiver).

1 asserted claims of the '571 patent are not patentably distinct from the claims of the '851 and '814  
2 patents. *See generally* Kieckhefer Decl. Ex. F (Dkt. No. 103-12).

3 The parties devote a significant portion of their briefs to two terms that appear in the  
4 '851/'814 patents but not in the '571 patent: "programming reference parameter" and "control  
5 circuitry." Defendant asserts that these terms do not require construction, and that their ordinary  
6 and customary meaning, in combination with the surrounding claim language and the Court's  
7 constructions of the '571 patent demonstrate invalidity of the '571 patent.  
8

9 Defendant contends that the '851/'814 claim language "programming reference  
10 parameter," is not patentably distinct from the "reference voltage" in the '571 patent. Defendant  
11 contends that both terms function the same way by (i) being selected in accordance with  
12 information related to the memory cell's programming state and (ii) corresponding to a particular  
13 memory state of the cell. Defendant argues, *inter alia*, that "programming reference parameter" is  
14 a "mere linguistic substitution" for "reference voltage," Defendant's Reply at 11 (Dkt. No. 109),  
15 and defendant notes that "programming reference parameter" appears only in the claims of the  
16 '851/'814 patents and not in the specifications, thus undercutting any argument by plaintiff that  
17 the '851/'814 specifications teach a different meaning for "programming reference parameter"  
18 than the meaning for "reference voltage."  
19

20 Defendant argues that the claim language "control circuitry," which appears in the  
21 '851/'814 patents but not in the '571 patent, is equivalent to the claim language "comparator  
22 means" in the '571 patent. Defendant argues that the patents' specifications disclose the same  
23 structure for the terms, *i.e.* "verify reference select circuit," and the same function, *i.e.* "selecting  
24 one of a plurality of reference voltages in accordance with the input information." Defendant  
25 argues in the alternative that, to the extent "control circuitry" includes more than just a  
26 "comparator means," the additional components are limitations that do not create a patentable  
27 distinction.  
28

Plaintiff contends that the '851/'814 patent claims embody a patentably distinct improvement over the '571 patent claims. Plaintiff argues that “the claims of the '571 patent cover a method/system of programming a multi-level memory cell that requires separate and distinct verify and control circuits that rely on the use of verify reference voltages,” while “the claims of the '851/'814 patents cover a different system for programming reference parameters/voltages instead of verify reference voltages to ensure reliable operation of the multi-level memory cells.” Plaintiff’s Opp’n at 19:11-17 (Dkt. No. 108). Plaintiff has submitted a declaration from its expert, Dr. Jack Lee, setting forth his opinions that the claims of the '571 patents are patentably distinct and not obvious in view of the claims of the '851/'814 patents. *See generally* Lee Decl. (Dkt. No. 108-1).

Plaintiff also contends that defendant’s motion is fatally defective by not proposing constructions for the two terms that appear in the '851/'814 patent claim language that are not present in the '571 patent. Plaintiff argues that the '851/'814 patent term “programming reference parameter” differs from the '571 patent term “reference voltage” because the former possesses a dynamic and dependent relationship with the dynamic “read reference parameters,” whereas a “reference voltage” and “read reference voltages” are static values. Plaintiff argues that this difference allows the '851/'814 patent apparatus to better adapt to changes in operating conditions (e.g. temperature, system voltages, degradation of memory cells), resulting in fewer read errors compared to the '571 apparatus. Plaintiff also contends that because the '851/'814 patent “control circuitry” generates the program reference parameters and read reference parameters, the term “control circuitry” necessarily encompasses more than the '571 patent “comparator means,” which is used only to verify the level of the memory cells. *See generally* Lee Decl.

The Court holds that defendant has not met its burden on summary judgment to show by clear and convincing evidence that the asserted claims of the '571 patent are invalid due to OTDP based on claims 3 and 7 of the '851 and '814 patents. *U.S. Gypsum Co. v. Nat’l Gypsum Co.*,

1 74 F.3d. 1209, 1212 (Fed. Cir. 1996). The '851/'814 patents purport to be improvements on the  
2 inventions in previous applications. '851 Patent 3:39-50; '814 Patent 3:42-53. The '851/'814  
3 patents state that their points of novelty are (i) new concepts of programming reference signal  
4 generation and memory state demarcation and (ii) the use of reference cells for programming  
5 reference signal generation. '851 Patent 3:50-54, 4:46-48; '814 Patent 3:53-57, 4:49-51. The  
6 '851/'814 patents explain,

7  
8 The embodiments for memory state demarcation are based on a new concept  
9 whereby the read reference signals are generated using the programming reference  
10 signals, or signals set in substantial correspondence with the programming  
11 reference signals. The read reference signals are thus effectively dependent upon  
12 the programming reference signals. Because of this dependence, the system design  
can guarantee that the two sets of signals will closely conform with a pre-  
determined relationship for program margining.

13 '851 Patent 13:65-14:1-6; '814 Patent 14:1-12. The '851/'814 patents also explain that the use of  
14 reference cells in programming reference signal generation allows the memory cells to account for  
15 changes in operating conditions. '851 Patent 14:16-22; '814 Patent 14:21-27. These  
16 programming techniques allegedly result in more reliable and accurate multi-bit, non-volatile  
17 memory cells. '851 Patent 13:61-64, 14:31-33; '814 Patent 13:67, 14:1-3, 14:36-38. Both patents  
18 provide specific embodiments of these alleged inventions with accompanying circuitry, all of  
19 which are not present in the '571 patent. '851 Patent FIGS. 15, 17-20, 22-23; '814 Patent FIGS.  
20 15, 17-20, 22-23; *see generally* '571 Patent.

21  
22 On the current record, the Court cannot hold that the asserted claims of the '571 patent are  
23 not patentably distinct and/or are obvious in view of the '851/'814 patents. The parties have  
24 submitted dueling expert reports which detail, at length, the experts' conflicting opinions about the  
25 inventions claimed in the '571 and '851/'814 patents and whether the asserted claims of the '571  
26 patent are distinct from and obvious in view of the '851/'814 patents. *Compare* McAlexander  
27 Decl. ¶¶ 9-12, 32-122, *with* Lee Decl. ¶¶ 6-17, 27-80; *see In re Gabapentin*, 503 F.3d 1254, 1259-  
28

60 (Fed. Cir. 2007) (reversing summary judgment and finding that competing expert reports raised issue of fact regarding whether claim limitations were met). Neither defendant nor defendant’s expert addresses the alleged differences of “programming reference parameter” from “reference voltage” apparent in the specifications, address the components beyond a comparator present in control circuitry and which are apparent in the specifications, or provide the Court with a compelling reason why those differences are irrelevant to the claim terms’ meanings.<sup>5</sup> The Court holds defendant has not met its high burden of demonstrating that its interpretation of those ’854/’814 patent claim terms “most naturally aligns with the patent[s]’ description[s] of the invention[s] . . . .” *Sun Pharm.*, 611 F.3d at 1388 (emphasis removed).<sup>6</sup>

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<sup>5</sup> Defendant objects to plaintiff’s argument that “programming reference parameter” and “control circuitry” must be construed in order to conduct the OTDP analysis, noting that previously defendant propounded an interrogatory asking plaintiff to “[i]dentify each claim term or phrase for which MLC asserts claim construction will affect [the OTDP analysis]” and that plaintiff responded that the interrogatory was “premature” and that “a full comparison will be conducted after claim construction and during expert discovery.” Defendant’s Reply at 9 (Dkt. No. 109). Defendant notes that plaintiff never supplemented this interrogatory response.

In light of the positions taken by plaintiff in opposing the current summary judgment motion, the Court finds that plaintiff should have supplemented this interrogatory response. However, the Court is denying defendant’s motion based upon defendant’s failure to meet its burden, not based upon plaintiff’s claim construction arguments, and the Court further notes that defendant has taken the position that no claim construction of the two terms is necessary.

<sup>6</sup> The parties also dispute the proper direction of analysis for “one-way” OTDP inquiries. Plaintiff contends that the proper one-way OTDP inquiry is whether the later-filed patent claims an obvious variation of the invention claimed in the earlier-filed patent, whereas defendant contends that the proper inquiry is whether the later-expiring patent claims an obvious variation of the invention claimed in the earlier-expiring patent. Because the Court holds that defendant has not met its initial burden, the Court need not address that dispute at this time.



**CONCLUSION**

For the foregoing reasons, the Court DENIES plaintiff's summary judgment motion and DENIES defendant's summary judgment motion.

**IT IS SO ORDERED.**

Dated: April 26, 2017



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SUSAN ILLSTON  
United States District Judge